

Washington Park Arboretum

BULLETIN



ELISABETH C. MILLER LIBRARY
UW Botanic Gardens
Box 354115
Seattle, WA
98195-4115

JUN 30 2011

Published by the Arboretum Foundation

Summer 2011

\$5

The Washington Park Arboretum Bulletin is a benefit of Arboretum Foundation membership. For information on membership or advertising opportunities, contact the Arboretum Foundation at 206-325-4510 or gvc@arboretumfoundation.org.

Washington Park Arboretum

The Arboretum is a 230-acre dynamic garden of trees and shrubs, displaying internationally renowned collections of oaks, conifers, camellias, Japanese and other maples, hollies and a profusion of woody plants from the Pacific Northwest and around the world. Aesthetic enjoyment gracefully co-exists with science in this spectacular urban green space on the shores of Lake Washington. Visitors come to learn, explore, relax or reflect in Seattle's largest public garden.

The Washington Park Arboretum is managed cooperatively by the University of Washington Botanic Gardens and Seattle Parks and Recreation; the Arboretum Foundation is its major support organization.

Arboretum Foundation

The Arboretum Foundation's mission is to create and strengthen an engaged community of donors, volunteers and advocates who will promote, protect and enhance the Washington Park Arboretum for current and future generations.

2300 Arboretum Drive East, Seattle, WA 98112
206-325-4510 voice / 206-325-8893 fax
gvc@arboretumfoundation.org
www.arboretumfoundation.org

Office hours: 8:30 AM–4:30 PM weekdays
Gift shop hours: 9 AM–5 PM weekdays,
10 AM–4 PM weekends, closed holidays

Officers of the Arboretum Foundation Board of Directors

Paige Miller, Executive Director

| | |
|---------------------------------|--|
| Della Balick, President | Iris Wagner, Secretary |
| Susan Black, Vice President | Craig Trueblood, Treasurer |
| Fred Isaac, Vice President | Barbara Wright, Immediate Past President |
| Kathleen Pierce, Vice President | |

Members of the Arboretum Foundation Board of Directors

| | |
|---------------------|----------------------|
| Sabra Contreras | Elizabeth Moses |
| Cheryl dos Remedios | Mary Ellen Mulder |
| David Hervey | Kimberly Ordon |
| Dan Hinkley | Jim Reid |
| Jenefer Hutchins | Michael Shiosaki |
| Steve Lorton | Meredith (Buz) Smith |
| Brice Maryman | Roger Williams |
| Beth Morgan | |

Ex Officio

Paige Miller, Executive Director, Arboretum Foundation
Sandra Lier, Executive Director, UW Botanic Gardens
Christopher Williams, Superintendent, Seattle Parks & Recreation

Graham Visitors Center

Open 9 AM–5 PM weekdays,
10 AM–4 PM weekends, closed holidays
The Arboretum is accessible by Metro Transit buses #11, #43 and #48. For more information: www.transit.metrokc.gov

University of Washington Botanic Gardens

The University of Washington manages the Arboretum's collections, horticultural programs, facilities and education programs through the University of Washington Botanic Gardens. It owns some of the land and buildings and all of the collections.

206-543-8800 voice / 206-616-2871 fax
Office hours: 10 AM–4 PM weekdays
www.uwbotanicgardens.org

Sandra Lier, Executive Director

Seattle Parks and Recreation

The City of Seattle owns most of the Arboretum's land and buildings. Seattle Parks and Recreation is responsible for park functions throughout the Arboretum and manages and operates the Japanese Garden.

206-684-4556 voice / 206-684-4304 fax

Washington Park Arboretum Bulletin

Jan K. Whitner,
Editor

Constance Bollen, cbgraphics
Graphic Design

Cynthia E. Duryee,
Copy Editor

Editorial Board

| | |
|--|--|
| Betsy Anderson, Garden Historian & Landscape Designer | Richie Steffen, Coordinator of Horticulture, Elisabeth C. Miller Botanical Garden |
| Janine Anderson, Garden Designer & Writer | Brian R. Thompson, Elisabeth C. Miller Library, University of Washington Botanic Gardens |
| Constance Bollen, Graphic Designer | Cass Turnbull, Plant Amnesty Founder |
| Walt Bubelis, Edmonds Community College | Liisa Wihman, Garden Historian & Writer |
| Niall Dunne, Communications Manager, Arboretum Foundation | Phil Wood, Garden Designer & Writer |
| Cynthia E. Duryee, Writer/Editor | John Wott, Professor Emeritus, University of Washington Botanic Gardens |
| Daniel J. Hinkley, Author, Lecturer, Horticultural Consultant | |
| Steven R. Lorton, Former Northwest Bureau Chief, Sunset Magazine | Botanical Editor |
| Christina Pfeiffer, Horticultural Consultant | Randall Hitchin, Plant Collections Manager, University of Washington Botanic Gardens |

Summer 2011 Volume 73. Issue 2.

© 2011 The Arboretum Foundation. ISSN 1046-8749.

C O N T E N T S

- | | |
|---|---|
| <p>2 Will Summer Ever Come?—<i>Paige Miller</i></p> <p>3 THE OTWAYS: The Hoh Rain Forest's Australian Sister—<i>Liisa Wihman</i></p> <p>10 Creating a Sustainable Landscape—<i>Niall Dunne</i></p> <p>15 "THE CONSCIENTIOUS GARDENER: Cultivating a Garden Ethic"—<i>Sarah Reichard</i></p> | <p>18 Hints for Taking Better Garden Photos—<i>Steve Whitner</i></p> <p>24 Blackberry Memories—<i>Janine Anderson</i></p> <p>26 IN A GARDEN LIBRARY: Miller Library Reference Service—<i>Rebecca Alexander</i></p> |
|---|---|



ABOVE: It's hard to imagine a more beautiful ferry dock than the one on Isola Bella, the spectacular small island in northern Italy's Lake Maggiore that features a 17th century villa and gardens. The article beginning on page 18 contains hints for bringing back better photographs of the gardens you visit. Steve Whitner photo.

ON THE COVER: Giant myrtle beeches dominate landscapes in the Otways, Australia's great temperate rainforest. (Liisa Wihman photo)

Will Summer Ever Come?

Impatient children on a road trip ask every 10 minutes, “Are we there yet?” Just so, many of us have been asking ourselves, “Is it spring yet? Will summer ever come?” A plant donations nursery volunteer commented yesterday as we gathered around in our woolens, “We are in Mayvember. Is Juneuary coming next?”

It has been the coldest spring in Puget Sound since our recordkeeping began. And we are feeling the cumulative effects of the cold, the dark, the rain, the bone-numbing weather. Week after week, month after month of gloom outside begins to wear on us and adds to the other struggles we face. The economic gloom of the Great Recession still grips our region and threatens the public funding that supports much of what we hold dear, including our public parks and gardens such as the Arboretum.

News seems to come weekly of a long-time volunteer or friend battling serious illness or losing the fight. My own dad has just been admitted to a nursing home—a once brilliant, vibrant, active man stripped of his physical and mental agility by the harsh hand of Parkinson’s disease. The cold and rain has made our grass greener and the flowers on the spring blooming trees and shrubs seem almost everlasting, but even that has not been enough to lift the gloom.

And yet, and yet. A rare sunny day appears and the world sparkles. There is so much to



do. It is time to complete the fundraising for the New Zealand Forest, so the site can be ready for the thousands of plants now under propagation. And, we have to be ready to care for our new gardens with a lot more help from our volunteers. So, a group of us from the University and the Foundation have been

meeting to plan for a new Pacific Connections Unit, to be the new corps to assist the staff in maintaining our new eco-geographic gardens. What a great way to bring people into the Arboretum, to build camaraderie and a sense of connection to this special place! The promise of a great public garden is that it will last for generations, that a bad winter and spring (or a couple in a row) will not diminish its promise of something wonderful to come. Yup—there will be a summer. I just hope that it comes this year. ☺

Cheers,

Paige Miller

Paige Miller, Executive Director,
Arboretum Foundation



THE OTWAYS:

The Hoh Rain Forest's Australian Sister

TEXT & PHOTOGRAPHS BY LIISA WIHMAN



Wandering through the gravelly, dry beds of the Australia section of the Arboretum's Pacific Connections Display Garden, one might think that



the immense Pacific Ocean is the only thing that links lush Cascadia with the silvery, leathery flora of Australia—a continent with landscapes and plant palettes significantly

ABOVE: Kangaroo ferns sprouting from the branches of an Otways messmate.

INSET: Waterfalls carve through damp, moss-covered stone walls.



different in form, colors and smells from the moist and mossy shores of the Pacific Northwest. But the areas share some unexpected similarities. One is that they harbor two of the few remaining temperate rain forests in the world: the Otways in the state of Victoria on the southeastern shores of Australia, and the Hoh Rain Forest on the Olympic Peninsula in Washington state.

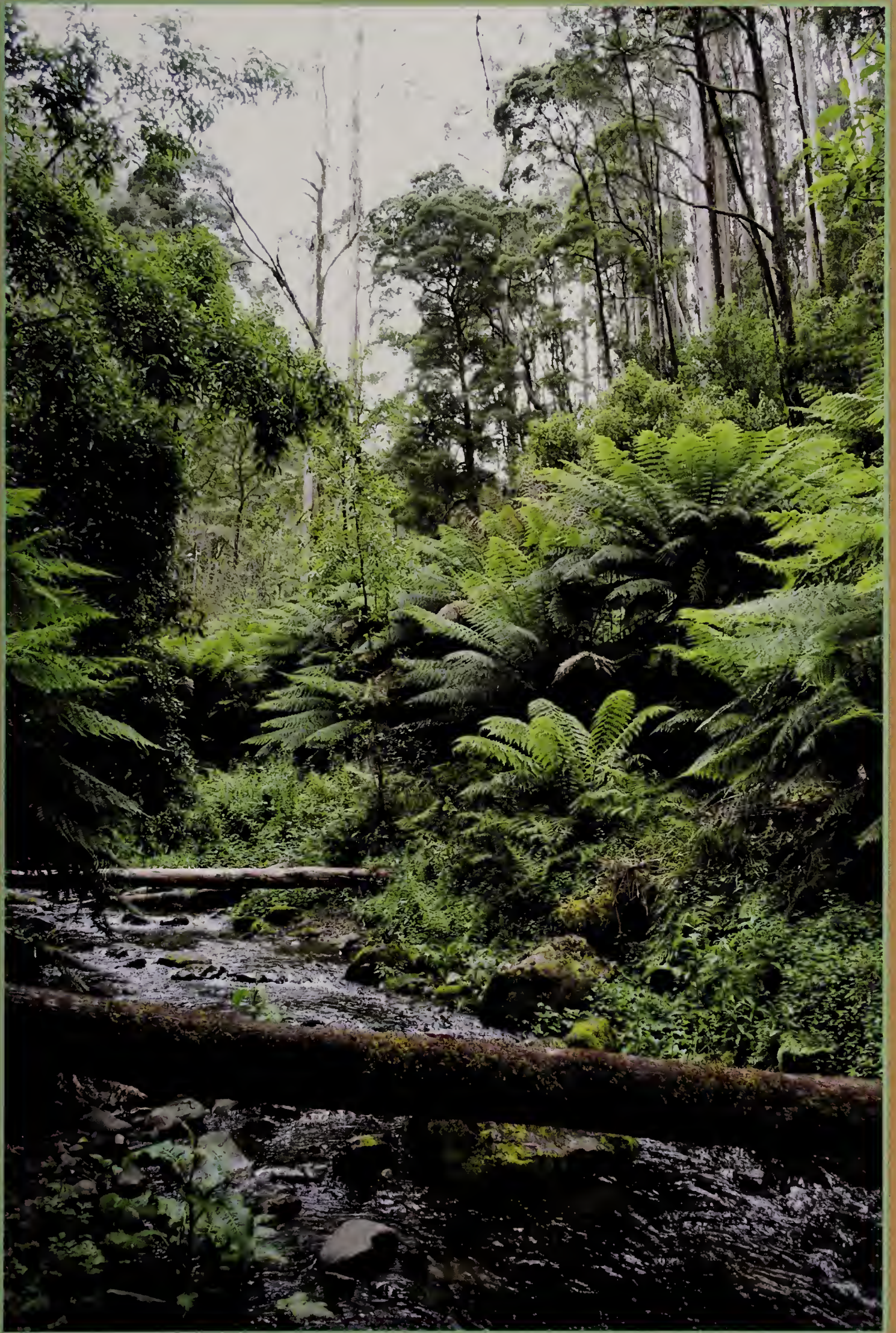
The two forests display some differences: The Otways area receives yearly rainfall between 45 and 75 inches, while the Hoh soaks up from 140 to 167 inches. Average temperatures in the Hoh range from the low 30s to the 70s, only occasionally reaching 80 degrees F. The Otways remain a balmy 50 to 80 degrees, although temperatures up to 95

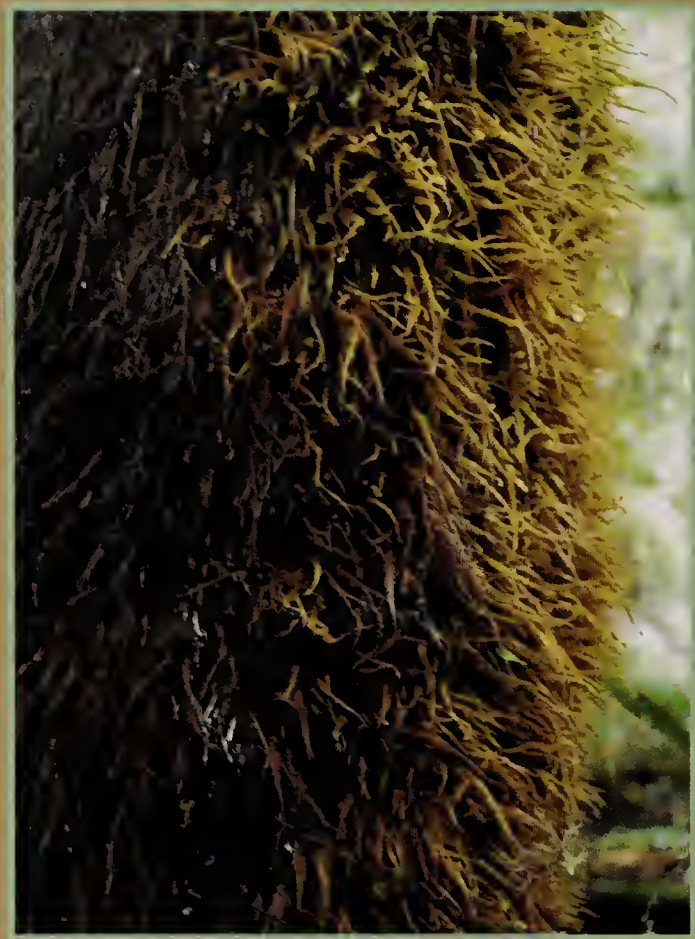
degrees in surrounding areas are not uncommon during the summer months from January to March. (The forest's verdant, dense canopies provide cool relief even during the most scorching summer days.)

The Otways originally were part of ancient Gondwanaland, the supercontinent that over 140 million years ago included most of the landmasses of the southern hemisphere. Today their red, loamy soils and lush, deep gullies support several prehistoric species of trees, including the fine-leaved myrtle beech (*Nothofagus cunninghamii*) that predates the ubiquitous, fire-resistant genera of *Eucalyptus*, *Banksia*, and *Acacia*. Unlike eucalypts that have adapted to their increasingly dry environment and re-shoot and regenerate after a fire,

ABOVE: Glossy, leathery leaves of the hard waterfern (*Blechnum wattsii*) fill the forest floor.

OPPOSITE: After a long drought, creeks of the Otways are again waterfilled.





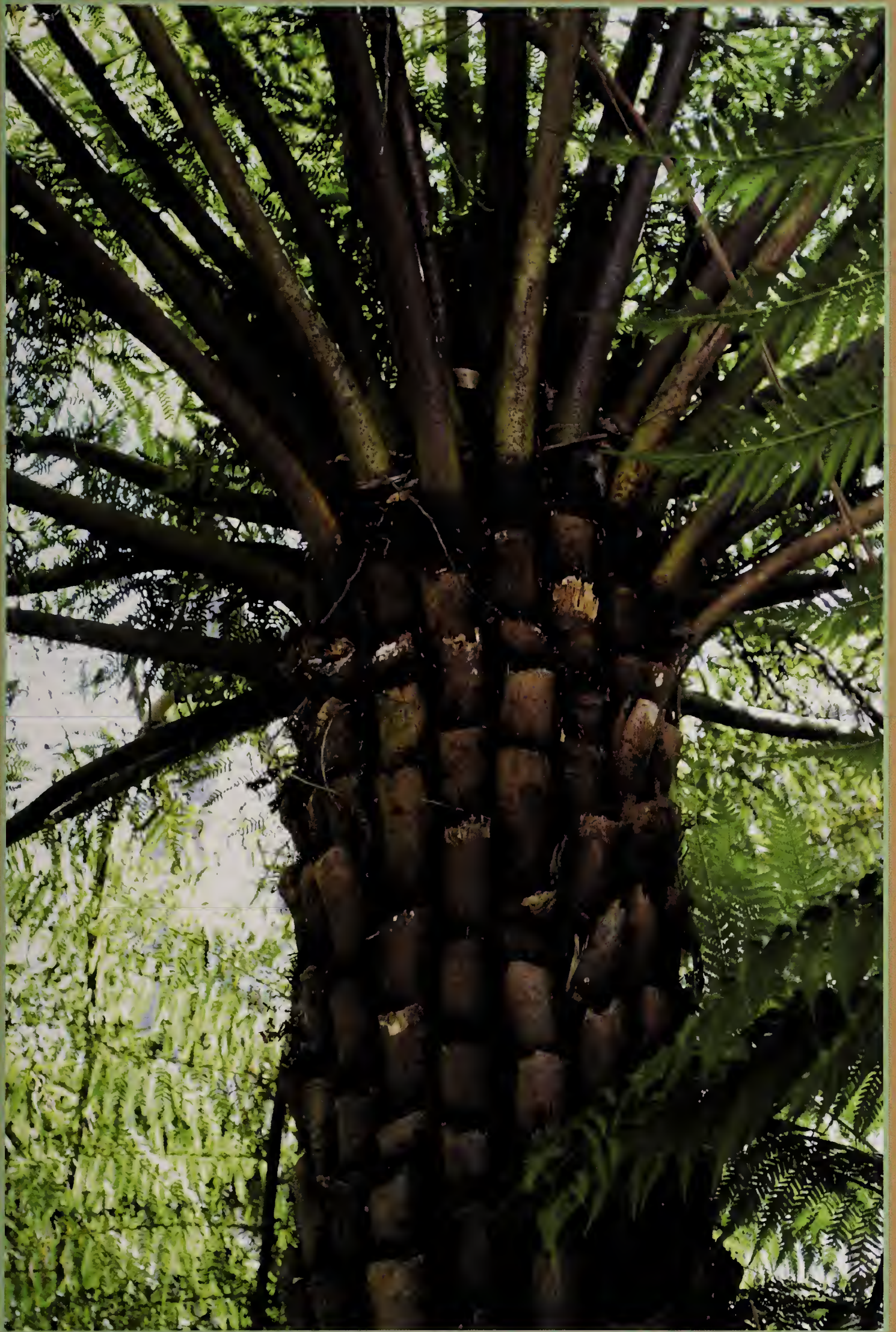
both trees and seeds of the myrtle beech die in a bush-fire. This means that these magnificent trees that once filled the forests of Australia, South America and Antarctica are now almost extinct, surviving only in the Otways and temperate rain forests in Tasmania. Growing up to 130 feet, and with a life-span of more than 300 years, their billowy, layered canopies and huge, smooth trunks provide a home to mosses, lichens and epiphytes, as well as hundreds of different species of insects and other creatures.

Besides the myrtle beech, the principal tree species in the Otways are two species of *Eucalyptus*: the mountain ash (*Eucalyptus regnans*—the tallest flowering plant in the world) and the messmate (or stringybark messmate, *E. obliqua*). A third, common tree species is a hybrid of both called the Otways messmate (*E. obliqua* x *regnans*). Messmates (the etymology of the name is unknown) grow

tall—normally to 200 feet but occasionally up to 350 feet. (A huge Otways messmate in the Otways area, which measured over 88 feet around its base, recently fell due to natural causes.) Unlike the myrtle beech, these handsome eucalypts have a lignotuber—a starchy swelling of the root crown that protects them through even severe bushfires, enabling them to sprout and recover—although in a lower, multi-stemmed form the second time around. The messmates shed leaves all year round, and their bark falls down once a year in wide, woody ribbons, creating a soft and dry “floor” for hiking trails.

The Otways’ dense, tall canopy makes an excellent shelter for a myriad of understory plants, of which the soft tree fern (*Dicksonia antarctica*) and rough tree fern (*Cyathea australis*)—which also date from the times of the dinosaurs—are probably the most well known. These two species are easily recog-

ABOVE LEFT: Wiry, cinnamon-brown pelt of the soft tree fern, *Dicksonia antarctica*. **ABOVE RIGHT:** Myrtle beech overgrown with kangaroo fern, *Microsorium pustulatum*. **OPPOSITE:** The scaly trunk of the rough tree fern.



nizable by their stems. The soft tree fern is covered with cinnamon-brown, fibrous, matted roots, reminding viewers of the pelt of a mammoth; while the trunk of the rough tree fern looks more like the scaly back of a reptile, with its surface consisting of broken fronds and masses of hair-like tendrils. Tree fern trunks are actually greatly enlarged rhizomes, and the aboriginal people who live in the Otways area traditionally ate the pith from the center of the trunk and rubbed the sap from it on their skins to relieve the sting of cuts and itch of insect bites.

Tree ferns were enormously popular during the Victorian era: An unconfirmed story reports their trunks were used as ships' ballast and then dumped in garbage piles in Cornwall in England. Later, when huge, sturdy fronds sprouted up, excited gardeners gathered them for their plant collections. After some decades of neglect by gardeners, tree ferns have once again become preferred plant choices for *avant-garde* gardens around the world.¹ They stand up to salty winds and tolerate temperatures to 10 degrees F, which makes them hardy as garden and container plants, as long as the fronds are folded upwards and protected with fleece or an old blanket during the cold season. They grow slowly—only about one foot every 10 years—which makes them expensive to buy but also easy to place, so they can be used to great effect, even in small gardens.

The forest floor in the Otways is covered by small ferns, lichens, liverworts and mosses, even if the last mentioned are not quite as rampant as those in the hanging moss gardens of the Hoh. The slim, dagger-like leaves of kangaroo ferns (*Microsorium pustulatum*) cover many older trees, making them look like hairy giants in need of a good shaving. The hard waterfern (*Blechnum wattsii*) spreads through rhizomes, covering the ground around

it with leathery, dark leaves. *Adiantum*, *Gleichenia* and *Pteridium* species also grow on the forest floor of the Otways. Above, many waterfalls have carved their way down sandstone cliffs, and countless species of liverworts, mosses and lichens, together with smaller ferns, cling to the steep stone outcrops around the falls, thriving on the ever-present droplets of mist.

The Otways share with the Olympic National Park a history of extensive logging from the late-19th to mid-20th centuries. When walking the trails, visitors still see signs of bygone logging practices: sawing grooves in immense, old trees that avoided downing; huge stumps slowly decaying into the forest floor; and sections of tramlines—that once were used to transfer the logs to the sawmills—still peeking through the advancing vegetation. Timber production reached its zenith in 1961, but it was not until 2008 that clear-cut logging and wood-chipping rights expired on some native forest areas. The rights were not extended again as a result of a successful seven-year community campaign driven by the Otway Ranges Environment Network (OREN 1995-2002, www.oren.org.au). The Otways now represent the only high-rainfall, tall-forest region in Australia where an existing and well-established native forest woodchip industry for both domestic and export markets has been abandoned. Although large areas of forest were lost during the logging decades, the Otways have been protected since 2005 with the establishment of the Great Otway National Park (254,518 acres) and Otway Forest Park (96,371 acres).

Like the Hoh Rain Forest and the lands of Olympic National Park, the Otways have endured much since their traditional owners, the Aboriginal people, were displaced by new settlers and their economic interests.

1 Australia is still the main source of tree fern plants, and the Australian government tries to control the trade of tree ferns in order to ensure that plants to be traded are from areas that would be destroyed in road-building or other development; trunks of living tree ferns can be sold only by licensed tree fern harvesters.

They have survived the era of timber logging and several major bushfires that, despite being natural occurrences, still greatly endanger the survival of such tree species as the ancient myrtle beech. When I visited in 2007, the Otways and the state of Victoria remained in the grip of a severe drought that had lasted for 12 years; the drought temporarily silenced the many rippling waterfalls in the area and made many of us question the future of the park.

On my latest visit in December 2010, the last timber trucks were gone, the drought had broken, and the creeks ran full again; the waterfalls filled the air with their balmy mist. An earthy, rich smell of decomposing wood lingered in the air, competing with the fresh smell of the eucalypts. I wandered under the high canopies and past the huge, lacy fronds of the tree ferns, listening to the calls of the tiny tree frogs and the crazy laughs of the

kookaburras. Everything was strangely similar, and yet so different, from the Hoh—the Otways Pacific Northwest sister, with its stormy shores, huge conifers and wildly rampant mosses. In both places, the remaining pockets of untouched old-growth forests quietly demonstrate the long time needed to re-grow and reproduce the majestic tree giants of the past. And luckily, both sisters are now protected and can be enjoyed by generations to come. ~

LIISA WIHMAN is a Finnish garden historian and writer, now based in Seattle, who received a master's degree in art history with a major in garden history from Stockholm University. She serves as a member of the "Bulletin" Editorial Board. Liisa's blog, www.intercontinentalgardener.blogspot.com, is about all things related to gardens and gardening.



WELLS MEDINA
N U R S E R Y

Where Gardeners Grow

5 Acres of Superior Quality Plants

Perennials • Annuals • Shrubs • Roses
Rhododendrons • Japanese Maples

Reference Library • Knowledgeable Staff • Display Gardens
Demonstration Containers

425.454.1853

8300 NE 24th Street • Just off 520 in Medina, WA

Creating a Sustainable Landscape

BY NIALL DUNNE



There's an old, abandoned, single-story building on 24th Avenue, near where I live in Seattle's Ballard neighborhood. I pass by it every time I walk to the local supermarket. The wood and brick building—a former city library—has a quaint, ski-lodge-type charm to it and is flanked on two sides by an impressive collection of mature pines, oaks, birches, dogwoods, and rhodies. But the structure is very obviously crumbling and hazardous, and

has to come down. In its place there will soon be a shiny, new six-story, block-wide, mixed-use development—yet another castle of condos and commercial space in a neighborhood that seems overburdened with them.

On my most recent trip past the grotty old library with the beautiful trees, I noticed that a big sign had been placed on the street corner advertising the upcoming development. Underneath an artist's sketch of the new

ABOVE: Mature pines and oaks outside the old Ballard Library, the site of a future LEED Platinum condo complex. The plants will most likely not survive the construction of this ultra green building. (Photograph by Niall Dunne)

building was this sales pitch: “Make a Sustainable Choice.” Below it were some bullet points explaining how the building will feature 111 fabulous apartments, a roof-deck garden with awesome views of Puget Sound and Olympic Mountains, and more. The sign also said that the building creators will be targeting LEED Platinum certification—the “gold” standard for green buildings in the U.S.

This last part was very encouraging news. But while I felt happy that the developers would be working hard to ensure that the building would maximize energy savings and water efficiency, minimize carbon dioxide emissions, improve indoor air quality, responsibly source their materials, and so on—I couldn’t help but wonder what was going to happen to the trees. Sustainability is defined as the capacity to endure, but my feeling was that the only thing the trees would be enduring is the sharp lick of a saw blade. (The artist’s sketch depicted some parking strips with lawn and a few ghost-like trees—presumably the ghosts of former plants on the site. The developer didn’t respond to my email asking about their plans for the trees.) The LEED certification system is a marvelous framework for implementing green building design, but it has a major blind spot—it pays scant attention to the land upon which a building sits.

These days, when we “break ground” on the construction of a new condo complex or residential home, the conventional land management practices that accompany this construction typically cause damage to the environment — plants are ripped up, the soil is scraped and compacted, and the new landscaping that goes in is created for aesthetic appeal only (and often requires a lot of energy, water, and polluting chemicals in order to be sustained). Enter the Sustainable Sites Initiative (SITES), the first performance and benchmark rating system

**“I couldn’t help
but wonder what
was going to happen
to the trees.”**

in the nation for the design, construction, and maintenance of sustainable landscapes. A collaborative effort by the American Society of Landscape Architects, the Ladybird Johnson Wildflower Center, and the U.S. Botanic Garden, SITES focuses on the entire site—regardless of its size, or

whether or not a building is in the plans—and prioritizes the preservation and regeneration of natural landscape features that provide a range of ecosystem services, such as climate regulation, stormwater management, erosion control, wildlife habitat, and human health benefits.

You can read all about SITES on the web site, www.sustainablesites.org. Its key document is the *Guidelines and Performance Benchmarks 2009*, which can be downloaded in PDF format. This document begins by describing the 10 guiding principles of the initiative. One of these is “do no harm,” and urges developers not to make any changes to a site that will degrade the surrounding environment. Another is “use a systems thinking approach” and calls for a reestablishment of the “integral and essential relationship between natural processes and human activity.”

Based on these principles, the document then goes on to define a series of 15 technical prerequisites for creating a sustainable site. For example, prerequisite 1.2 is “protect floodplain functions,” and prerequisite 4.1 is “use appropriate, non-invasive plants.” (Gardeners will recognize this instruction as “right plant, right place,” the mantra of sustainable gardening. See “Making Sense of SITES for Gardeners,” page 12). All of the prerequisites must be met before a site can even be considered for a rating within the SITES scoring system. This system is based on a list of 51 performance “credits,” each with a score attached. For example, you receive 10 points for redeveloping a brownfield (i.e. a previously developed but now contaminated site); 6 points for minimizing disturbance of soil

MAKING SENSE OF *SITES* FOR GARDENERS

ARE YOU A HOME GARDENER interested in making your landscape more sustainable but are not terribly motivated about sorting through all the technical minutiae of the *SITES* guidelines? Yeah...me too! You'll be happy to know that the folks at *SITES* have created a wonderful web-based resource called *Landscape for Life* (www.landscapeforlife.org) that presents the information in the guidelines in an easy-to-digest form for the residential green thumb.

Written by renowned garden writer and sustainable horticulture guru Janet Marinelli, *Landscape for Life* features a wealth of practical advice on how to switch from energy-guzzling, high-chemical-input gardening to a regenerative model that is more in tune with the workings of nature. "When we create sustainable landscapes," writes Janet in the introduction, "the landscapes give back, providing natural benefits that are essential to daily life, like cleaning the air and water, and maintaining soil fertility."

Echoing the *SITES* guidelines somewhat, the information on *Landscape for Life* is broken down into six categories: site assessment, soil, water, plants, materials, and human health. Each of these sections begins with checklists contrasting the attributes of a conventional garden with a sustainable garden as they relate to the section topic. For instance, here's how old-school gardens shape up against sustainable gardens in the plant department:

CONVENTIONAL LANDSCAPE

- Can include invasive plants that threaten natural areas
- Often requires water, fertilizer, and pesticides
- Provides minimal habitat for wildlife
- Not designed to improve home energy efficiency
- Usually leads to higher water, heating, and cooling bills

SUSTAINABLE LANDSCAPE

- Includes no invasive species
- Is adapted to the conditions on the site
- Plants are chosen for beauty and wildlife appeal
- Promotes home energy efficiency
- Can slash water, heating, and cooling bills

Below the checklists, you will find clear instructions on how to create a more natural, healthy garden. Staying with the example of the plant section, you would do this by identifying and removing invasive species, growing plants (native or exotic) that are non-invasive and adapted to your site conditions, designing for wildlife (by growing natives and providing water and shelter for critters), landscaping to increase home energy efficiency (using trees and shrubs to shield your residence from winter winds and the hot summer sun), and much more. Each of these specific instructions has its own webpage full of well-researched information and helpful tips.

Landscape for Life is a Beta site, meaning that it's still under review and—like the *SITES* rating system—will undergo refinement in the coming year. "The USBG and Wildflower Center plan to add a lot more photos," says Janet, "and to make the site searchable and more interactive, with changing features, probably by the fall. Also, a free curriculum on sustainable gardening will be made available on the web site."

during site design and construction; and 5 points if you preserve all vegetation on a site designated as “special status” (ie. of historic, aesthetic, or biological importance) by local, state, or federal entities.

To make life easier, the prerequisites and credits are organized into nine categories, including site selection; water; soils and vegetation; and human health and wellbeing. Sites are awarded a star rating based on the number of points they score out of a possible 250. A score of 100 gets you one star; 125 gets you two stars; 150 gets you three stars; and 250 gets you four stars. The SITES rating system is currently in its testing phase, with more than 150 pilot projects being conducted across the U.S. to see how well the guidelines work. Feedback from them will aid with the refinement of the guidelines, and the final rating system will be released in 2013.

And no doubt, there are some kinks in the guidelines that need working out. I spoke with Matt Suhadolnik, a landscape architect with the Seattle-based firm SvR Design Company, who is involved in one of the SITES pilot projects, a parking lot at Olympic College in Bremerton, Washington. Outfitted with bioswales and rain gardens (planted with a diverse mix of drought-tolerant and wildlife-friendly native species), porous pavement (which, along with the swales and gardens, helps eliminate stormwater runoff), lighting, expanded crosswalks for pedestrians, and electric vehicle charging stations—the parking lot is possibly the most sustainable one in the country. But while Matt is excited to be involved in the pilot program, he seemed frustrated by the fact that the parking lot only has a one-star rating.

“That is down to the fact that there are many credits we just simply can’t apply for,” said Matt. “For instance, how can we get the points for ‘protecting and restoring shoreline buffers’ if the parking lot is nowhere near a shoreline? There are also points for providing ‘opportunities for outdoor physical activities’

and ‘social interaction’, which is great, but who’d want to do that in a parking lot?”

Perhaps the scoring system needs to be better balanced. After all, it seems impossible to get a four-star rating unless you restore a brownfield that just happens to be located next to water—so you can earn the credits for adding shoreline or riparian buffers—and also has “special status” vegetation.

Getting back to the issue of the trees at the Ballard library, I felt a little frustrated with SITES too. It wasn’t clear to me, having read the guidelines, whether or not these trees would qualify as “special status” and live on, even in a top-rated SITES project. (There is a 3-point credit for re-using or recycling vegetation, soil, and rocks generated during construction—but the stately old trees at the library could never be transplanted, so they’d probably end up as furniture in the lobby.) Certainly, the trees are special to me, and I am a “local entity”, but I presume the designation of “special status” must be made by someone working for a government or other official agency. Then again, maybe this is something that will be fleshed out as part of the pilot phase process.

In any case, the spirit and intention of SITES is clear and very admirable—and if you read the *Benchmarks* document, you’ll be amazed at the thoroughness of the sustainability auditing, which includes everything from reducing light pollution to providing views of outdoor vegetation for mental restoration (sign me up for that!). In short, the initiative looks set to revolutionize landscaping in the coming century, just as LEED certification has done for buildings. ♡

NIALL DUNNE is the communications manager at the Arboretum Foundation and a member of the “Bulletin” Editorial Board. He is also currently editing a new book about native plants for Brooklyn Botanic Garden, scheduled for publication in fall 2011.

There's a (Botanical) Word for It...

BY A. LEXICOGRAPHER

EVER FEEL AT A LOSS FOR WORDS when discussing matters botanical? (This inability, by the way, is called *lethologica*, from the Greek terms for “forgetfulness” and “word.”)

Below is a selection of botanical terms that few of us ever will drop into casual conversations—but it’s nice to know what they mean when they appear in specialized reading.

And if you do drop them into a conversation, you may be indulging in *xenoglossia*, from the Greek words for “strange” and “tongue”—which means a speaker’s spontaneous use of foreign languages never previously heard or learned.

Except as noted, the words below derive from Greek or Latin roots. The definitions are based upon notes taken from various books, glossaries and dictionaries over a lifetime of casual reading in the field of botanical studies.

- ☞ **Ament**, noun, a spiky tassel of small, closely clustered, unisexual flowers lacking petals and sepals.
- ☞ **Bifer**, noun, a plant that blooms or fruits twice a year.
- ☞ **Commensal**, noun, either of two different organisms living in a close association from which one species benefits and the other is unharmed.
- ☞ **Dasyphyllous**, adj., having leaves with a hair-like down.
- ☞ **Endogamy**, noun, fertilization by pollen from other flowers on the same plant.
- ☞ **Fabiform**, adj., refers to a leaf shaped like a bean.
- ☞ **Galbulus**, noun, a cone the scales of which are fleshy and combined into a uniform mass, as the fruit of the juniper.
- ☞ **Haptotropism**, noun, the tendency of certain plants to respond to touch by growing towards or wrapping tendrils around what is touching them.
- ☞ **Imbricate**, verb, to overlap or be overlapped, e.g., leaves or scales.
- ☞ **Jaculiferous**, adj. having arrow-like, spiky prickles.
- ☞ **Kenogenesis**, noun, that part of an individual plant which does not replicate the evolutionary history of its group.
- ☞ **Labellum**, noun, the lowest of the three petals forming a corolla of an orchid, usually larger than the other two petals, and often spurred.

- ☞ **Membranaceous**, adj., thin and pliable, like the leaf of certain trees and shrubs.
- ☞ **Nuciferous**, adj., bearing or producing nuts.
- ☞ **Obconic**, adj., refers to a fruit or nut that is conical, with the apex pointing downwards.
- ☞ **Panduriform**, adj., refers to a leaf shaped like a violin.
- ☞ **Quadrifoliate**, adj., having four leaves attached to a common stem.
- ☞ **Repullulate**, verb, to bud, sprout or germinate again.
- ☞ **Salicetum**, noun, a place where willows are grown; a collection of willows.
- ☞ **Tegument**, noun, one of the scales that covers the leaf buds.
- ☞ **Umbel**, noun, a flower—head in which a cluster of flowers on stalks of nearly equal length spring from the same center on the main stalk, forming a flat or curved form.
- ☞ **Viviparous**, adj., developing bulbs, seeds or new plants on the parent plant while still attached to it.
- ☞ **Weedery**, noun, from the Anglo-Saxon—a collection of weeds.
- ☞ **Xanthin**, noun, that portion of the yellow coloring matter in flowers that is indissoluble in water.
- ☞ **Yewen**, adj., from Middle English—made of yew.
- ☞ **Zedoary**, noun, from the French—an aromatic substance obtained from the rootstocks of certain plants in the genus *Curcuma*, which are used in perfumes and medicines.

Samuel Johnson described **A. LEXICOGRAPHER** as “a harmless drudge that busies [herself] in tracing the original and detailing the signification of words.” She lives in Seattle and enjoys reading the “Bulletin.”

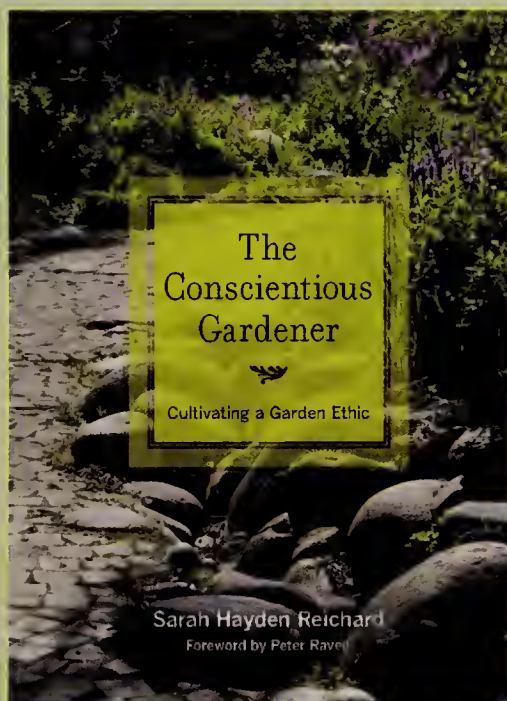
The Conscientious Gardener: Cultivating a Garden Ethic

BY SARAH REICHARD

Do we not sing our love for and obligation to the land of the free and the home of the brave? Yes, but just what and whom do we love? Certainly not the soil, which we are sending helter-skelter downriver. Certainly not the waters, which we assume have no function except to turn turbines, float barges, and carry off sewage. Certainly not the plants, of which we exterminate whole communities without batting an eye. Certainly not the animals, of which we have already extirpated many of the largest and most beautiful species. A land ethic of course cannot prevent the alteration, management, and use of these "resources," but it does affirm their right to continued existence, and, at least in spots, their continued existence in a natural state.

—Aldo Leopold, *A Sand County Almanac*, 1949

Aldo Leopold, the biologist, philosopher, and author, brought together the traditional view that nature should be used for human needs with the more romantic view that nature can refresh and inspire the human spirit. He understood that humans have a place in nature but not the right to exploit it at the expense of all other organisms. He believed that every piece of land is linked to other lands and waters and that action in one place results in reactions in another. Leopold was a professor at the University of Wisconsin and is considered by many to be the father of both wildlife science management and restoration



ecology, and his philosophically deep thinking about humans and their relationship to land and all the organisms on it continues to resonate with new generations.

A collection of essays, *A Sand County Almanac* was published in 1949, shortly after Aldo Leopold's death. I first read the book as an undergraduate majoring in botany at the University of Washington—I brought it on a backpacking trip and read

it to my boyfriend (now husband), Brian, by flashlight each night in the tent. The final essay, *The Land Ethic*, lays out a clear case for changing how humans relate to the land. Our ethics are an expression of our social

conscience and direct how we live and interact with one another—ideally to the mutual benefit of all. Leopold encourages us to extend them to include love of the “land,” which he defines as a system of soil, water, plants, and human and nonhuman animals. His words struck something deep within me, and over the nearly thirty years since I first read them, I have returned to them repeatedly for inspiration.

Just as Leopold believed that a land ethic reflects an ecological conscience, I believe that a garden ethic reflects the conscientiousness

of those who care for land by nurturing gardens. Gardeners revel in the beauty of a flower, the wonders of pollination turning that flower into a lovely or delicious fruit, the snap of a fresh pea pod picked from the vine and eaten on the spot. They are connected to their plot by a love of the living. But the garden ethic also arises from an increasing awareness that, over time, practices and products have crept into our craft that decrease its long-term sustainability. As we have moved from an agrarian society to one based in urban and suburban landscapes, we have lost contact with habits common to our ancestors—such as using naturally decomposing materials rather than synthetic fertilizers to improve soil fertility or nurturing predatory insects and birds instead of deploying the latest, greatest (also usually synthetic) products to control pests. A garden ethic gives us the information and structure to return to those less harmful procedures, helping us to view the garden, like the land, as a fully functioning ecosystem—and to incorporate the awareness that its impacts extend far beyond its footprint. Invasive species that escape into nearby wildlands, the mining and

The garden ethic
also reflects
conscientious
choices about how
we treat this
community, for
both its good and
our own.

transportation of materials such as peat from regions thousands of miles away, and the use of inefficient engines in garden equipment all contribute to the loss of biological diversity beyond our garden gates.

Conservation is important, but as Leopold realized, good intentions can be futile or even dangerous when devoid of critical thinking and understanding. This is certainly true in horticulture today. Many garden practices are based on half-truths, misinformation, and anecdotal rather than scientific evidence. The goal of much of my research

and writing is to provide gardeners with the solid information they need to make meaningful decisions about managing their gardens in ways that respect the interconnectedness of life on this planet, to protect biological diversity across the earth’s landscape.

I have evolved as a gardener as well. While I have been a botanical scientist most of my adult life, until several years ago my garden was a tiny patch of earth in a densely urban area. Even with my scientific knowledge, I often failed to see the connections between my actions and their impacts on wildlands. When I moved to a much larger garden, connected to a large greenbelt, I became more conscientious and aware of the consequences of seeming harmless things like raking leaves in the fall rather than allowing them to naturally decompose and feed the soil. I also realized that my previous choices in tending my small garden—even small things like which potting soil I used for container plantings—had repercussions outside my garden.

We often expect government—local, state, and federal—to regulate to promote the

conservation and protection of natural resources, and this is often appropriate and necessary. But even in the absence of such laws, the garden ethic, like Leopold's land ethic, reminds us of our obligation to remember that we are part of a community that includes plants, animals, and a myriad of other organisms that are integrated with and dependent on one another. The garden ethic also reflects conscientious choices about how we treat this community, for both its good and our own. Developing your garden ethic will take some effort, but it will be a journey of discovery resulting in greater satisfaction with your garden—and maybe yourself.

Aldo Leopold noted that he “presented the land ethic as a product of social evolution”: as new discoveries about the benefits or harms of land or wildlife management practices were realized, acceptance of those practices was modified. I also believe the garden ethic will evolve as we understand more about our world. My book provides some ideas towards achieving it – giving context and guidelines to help gardeners understand the consequences of their actions, but each individual must choose a personal path of right and wrong.

I began with a quote from Leopold and will end with perhaps the most iconic one from *The Land Ethic*: “A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise.” ∞

Professor **SARAH REICHARD** is the interim director of the University of Washington Botanic Gardens, including the Washington Park Arboretum. This essay is excerpted from her new book “The Conscientious Gardener: Cultivating a Garden Ethic” (University of California Press) which provides information on garden sustainability.

The Berger Partnership PS

Landscape Architecture

1721 Eighth Ave. N
Seattle, WA 98109
206.325.6877



bergerpartnership.com



Arboretum Shop
WASHINGTON PARK ARBORETUM

SUMMER GIFT IDEAS

- Miniature glass vases—
perfect for the cut-flower season
- *Designing with Grasses*—
a new book by Neil Lucas (Timber Press, 2011)
- Arboretum Foundation caps—cool, comfy,
and made from recycled materials

Ten percent discount for Foundation members
OPEN 10 AM—4 PM Daily

Pacific Office Automation

**thanks the many dedicated
employees and volunteers
whose hard work makes it
possible for all of us to
enjoy the Arboretum.**



PACIFIC OFFICE AUTOMATION
— PROBLEM SOLVED —

www.PacificOffice.com





Lingering Garden, Suzhou, China. This crane, made from pottery shards, had accumulated dirt and leaves, which we cleared away with a whisk broom. That leaf in the lower right corner? Not sure if the image would be better without it.



Hints for Taking Better Garden Photos

TEXT & PHOTOGRAPHS BY STEVE WHITNER

I was looking recently at older pictures of gardens—ones I took several years ago—and realized that I liked many of them better than most of my recent photos. Am I visiting gardens that are less nice or less photogenic? I don't think so. The gardens seem just as beautiful. Is the equipment different? Well, I have switched from traditional film to mostly digital processing, but the cameras overall are pretty similar and I'm using the same lenses. Mostly, I finally decided, I have

let myself move away from some of the basics of photography—the ones that help us compose and take images that help us communicate better with viewers.

So I decided to talk to someone and ask for advice—for ideas that would “renew my eye,” and that I could also pass along to others who would like to make their pictures work a little more effectively. I went to my local camera store—Kenmore Camera—and I talked to Michael Whitmarsh. He works there in

ABOVE: Leshan Temple, Sichuan Province, China. I like the way this image captures both lushness and quirkiness. I moved close and positioned the camera so the lighter details were highlighted against a dark background.

educational sales, but he's also a photographer, a camera collector and someone who is good at helping photographers think about the picture-taking process in a way that can point them toward better results. After talking about the problem, he came up with this list of things everybody can do to improve their photography. (As a note: We focused on images of gardens, but the same ideas will work with any subject.)

A warning: This article does not contain advice about buying equipment, so if you want recommendations for getting a new macro lens, you'll need to find another source. And it's not long on the technical details of f-stops and ISO settings. I'm convinced that most of us already have the equipment we need to take pictures that capture interesting ideas and feelings about the landscapes that we love. What will help us improve is thinking about the process a little differently and engaging in it a little more actively.

1 “Know what good light is and take advantage of it.” Light is king in picture taking, and the nature of the light that bounces off the subject into the camera has a major impact on the results. While you can't control the light, you can know what to look for and what to avoid. Those bright, sunny days that we have once in a while here in the maritime Northwest? Nice for strolling, but not so much for taking pictures. Bright sun creates hard shadows, and it's easy to give us images that seem harsh or washed out. The light that you would love to have when shooting in a garden is softly filtered sunlight—enough to provide an even range of color tones, and to leave shadows soft and gentle. It's the kind of light that avoids images where half the subject is either too dark or too bright. On bright days especially, early mornings and late afternoon are likely to yield more interesting light quality, and they can give dramatic shadows that can become part of the focus. Michael mentioned that several of the other photographers he

knows regularly do scouting trips to look at the way that light falls in the settings that they plan to take pictures in. If you're traveling, that's often not possible, but when you want to take pictures of scenes close to home it makes sense and can give terrific results. And don't shy away from “bad” weather; photos taken on rainy days can be remarkable. Storm coming in? It may mean great pictures. The only weather even I find myself really hating is wind—a few pictures with leaves blurred are atmospheric, but there's a limit to how often it works.

2 “Look at everything that is in the picture frame.” “Of course I'm looking at what's in the viewfinder or the preview screen,” you say. Well, yes and no. We all tend to look at the specific item that we are concentrating on, and it's easy to miss other things. It's not really our fault—a major part of it is the way that the eye and brain work together when we're seeing things. We really only actively see a small area of the visual field at any one time. The rest, the unimportant stuff out on the edge, just kind of disappears. And then you look at the finished picture—and see the garden hose that you didn't notice or the trash can over in the corner or the scrap of paper. The larger you make the image, the more they interfere and take the viewer's eye away from your real subject. The solution is to make a conscious choice to look around the entire frame, notice what's there, and try to eliminate anything that can distract. With digital cameras you also can look at the picture immediately after you've taken it, pay attention to everything that's there, and reshoot if you need to. The solution may be to change the camera location, but don't be afraid to move something temporarily while you shoot—even in a public place. Slide the hose over, move the trashcan a bit, pick up the scrap of paper, etc. But, of course, be careful to put it back where it was—well, not the paper, maybe.



Garden at Du Fu's Thatched Cottage, in Chengdu, China. The high-contrast lines of this rustic gate look even better in black and white than in color.

3 “Slow down and make your shots count.” When we were all shooting rolls of film, and we only had a certain number of exposures, this was automatic. Digital cameras make picture taking fast and flexible, let us preview results right away, and make it possible to delete images that don't work, but they can also lead us to shoot too quickly and move on too fast to the next image. Especially in landscape and garden photography, we rarely get good results by shooting lots and lots of images and hoping that a few will work. Fast work too easily becomes sloppy and careless. The antidote is to slow down and use a meditative approach to taking photographs, with an emphasis on seeing. Think about each shot, what it is that is interesting about the subject and the setting, and what you can do to make the shot work. For digital shots, Michael even suggested going out with a small-capacity memory card to force yourself to pick what is really important.

4 “Change your point of view.” Every photograph represents a vantage point, a position from which the viewer is engaging the subject. If you have lots that are the same, it becomes way less than interesting. It's especially easy to fall into the trap of creating

many pictures that view the world from the height of your eyes when you are standing. The reality is that lots of things in a garden are much more interesting if they are viewed from a different

angle or level. Any feature—a blossom, a vase, etc.—that is close to ground level is likely to look more interesting if the camera is held at its level. This is one aspect of photography where digital cameras can make it easier to increase variety, especially for people like me whose knees aren't as flexible as they were a couple of decades ago. Now it's much easier to put a camera low on the ground or high overhead and still be able to see the image—then review it quickly after the shot and try it again if you need to.

5 “Watch your back and keep moving.” It happens all the time. You're looking at the fountain and the cherry blossoms, fiddling around, and trying to think about how to make an interesting image. You finally finish, turn around, and see a much more interesting subject right there. In a garden or landscape, there are potential pictures all around you, and the options keep changing as you move through the space and the light shifts. So turn around. Move around. Look behind you. Even once you've decided to take a picture of a particular subject, don't be too quick to decide the location from which to take the picture. Circle the subject a couple of times and see how it looks from other angles. Sneak up on it from behind.

See how it looks against different backgrounds, with different angles of light. Then work on the one that seems most promising.

6 “Isolate on what’s important and get close to it.” There’s a temptation in gardens to always show grand arrays. While that’s important to get an overall sense of a space—and it can create great pictures—it’s often even more powerful to show less but to do it in detail. And, in any case, you need to have a variety of points of view to keep the set of images interesting. One way to help is to become very conscious of the individual things in the garden that make it interesting and to spend some time looking at each of them. Walk up and get close. Think about what this is contributing to the way that the overall setting creates your sense of the place. What makes the pond interesting? Are there plants curving down to the water? Get close enough so they fill most of the frame and you can really see them. Is there an interesting hardscape? Move in and try making one detail the subject. And when I say get close, I really mean move toward the subject. Staying back and zooming in can be handy, but it really gives a different and often less-effective image than physically getting closer with the camera.

distinguish the background from the foreground. It happens so quickly and automatically that most of the time we aren’t even aware that it’s happening. But because the camera has only one eye, at times it can be very, very difficult to tell foreground, subject and background apart when you see a photo. That tree, that was very interesting when you saw it with two eyes, gets flat and confusing when it’s viewed through one, because it blends in with the foliage behind it. Close one eye when you’re looking, and you’ll see what I mean. Picture takers need to compensate by looking for ways to help the viewer, who is using “one eye,” understand what’s close and what’s not—to separate the subject from other things. Light, color and texture often can help. If you position yourself so that the subject is in one kind of light and the other objects in the visual field are in a different one—say there’s light on the subject but the background is dark—you can provide a separation between them. Focus also can help. If your subject is in focus and everything farther away is blurry, it makes it easy to see the thing that is interesting. The best way of creating the focus difference is to get close to the subject physically, make sure the subject is in focus, and then shoot with the fastest

7 “Compensate for what the camera sees.” Because we normally see scenes with two eyes, it is generally easy to isolate subjects based on their distance from us and to

Great Mosque, Xi’an, China. We arrived when it was dark and rainy. I kept taking pictures and the results were surprisingly lovely—rich colors and reflective paved surfaces.





Confucian Temple, Suzhou, China. Penjing on a platform at one end of the temple contrast with construction rubble. I moved one of the arrangements to this position, and took the picture at the level of the container, leaving the jumbled background out of focus.

9 “Learn from others.” Look at what other photographers do, notice the characteristics of images that you like best, and think about

shutter speed you can. Most cameras have a simple way of letting you choose the shutter speed, and it makes sense to know how to control that variable. If you give up on the manual (I have a hard time understanding them, too!) or you can't find it anymore, take the camera to someone who can help you. Camera stores are great places for advice.

8 “Don't forget black and white.” There's a good reason why quite a lot of very powerful photographs are still done in black and white today, even when color is the universal norm for casual shooting. Color is absolutely great for gardens, but black and white is surprisingly powerful, especially where texture, shape or strong directional lines are the subject. Think tree limbs, hard afternoon shadows, a wrought iron gate, and so on. This is another area where digital cameras make experimenting easy and let you preserve your options. You can set the camera to record black and white images at any point, or you can convert color images to black and white. If you're not sure how to do it, go back to the advice at the end of the last paragraph and get some outside pointers.

how you could adapt the approach to your own pictures. Take a class or a workshop, matching it to your own level of experience. There are lots of courses available for advanced photographers, but there are also many sessions designed for people who want to both learn more about camera operation and about making more interesting images. One of the nice things about any class is that besides getting advice from an instructor, you also get to meet other people who have an interest in communicating through photographs, and you're likely to be introduced to new places to take pictures. Seeing how other people address the same kinds of situations that you are facing is a great opportunity to grow—and also to learn how to appreciate effective images. Has my asking for outside advice helped me? I can't tell for sure yet, but I'm planning a photo session in the next week or so and am looking forward to finding out. It has already made me eager to get out and start shooting! ~

STEVE WHITNER is an amateur photographer living in the Seattle area and a frequent contributor to the “Bulletin.”

Blackberry Memories

BY JANINE ANDERSON

I don't know when my mother first picked the fruit of *Rubus ursinus*, or trailing blackberry, the only native blackberry of the Pacific Northwest coast. It must have been when she was a girl, in the 20s, during long summer days spent with her sister and four brothers combing the hills that slope to the south-eastern shore of Lake Washington.

I only know that by the time I was a girl, in the 50s, the small, firm fruits had acquired an almost religious stature. We called them wild blackberries, and they were the only blackberries my mother would pick. Although Himalayan blackberries (correctly known as *Rubus armeniacus*, though commonly called *Rubus discolor*) encroached on our three acres, like a dark family secret they were never discussed, let alone gathered or eaten. If anything, we were embarrassed that such a dense thicket of prickly vines hovered so near our home.

The wild blackberries we coveted were found in logged areas where the sun reached the rotting richness of the slash. Often, patches didn't last long because once a nearby area was cleared, suburban development soon followed, and the patches metamorphosed into split-level homes for expanding middle-class families.

Locations of patches were kept secret. My mother's golfing buddy, Olwyn, told my mother

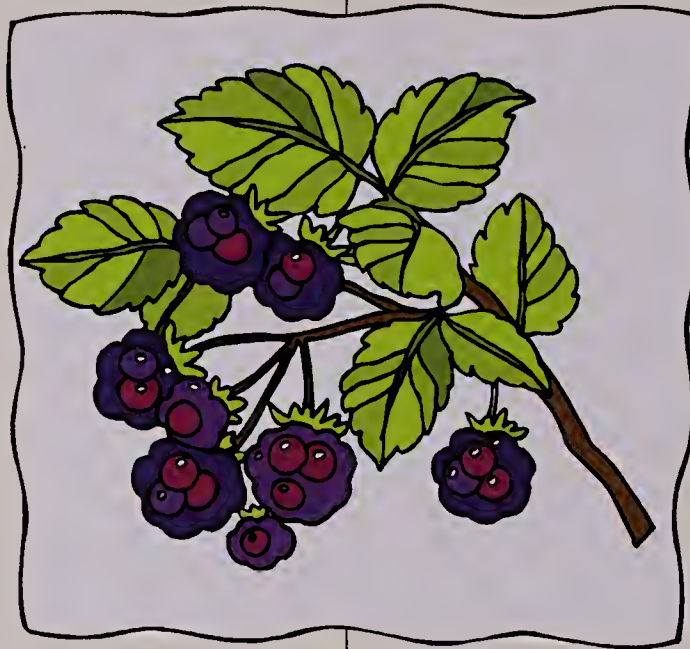
about a patch above Lake Washington's north-east shore. Olwyn's husband had discovered it while working as a log roller on the booms that lined the lake. We picked in Olwyn's patch several summers, one-pound coffee cans lashed to our waists. The berries were little, not more

than a quarter of an inch around, and hard to pick. Unlike blueberries—which grew in clusters and could be stripped by the handful from a branch in seconds—blackberries were picked one-by-one, painstakingly, and minutes could pass before we heard a “ping” when a berry hit the bottom of the can. It took one can to fill one pie, and pies were

why we were there. My mother's pies were the best ever baked.

Clambering over downed timber was treacherous. Although a tibia could snap with one misstep, even worse was to spill a nearly full can of berries. We'd hunker down, trying to salvage the fallen fruit from among the fine, prickly vines. Once, my father stumbled over a log but was so focused on picking that he didn't notice a broken branch had lodged in the flesh of his thigh. Pie that evening was followed by a trip to the emergency room.

My mother shared Olwyn's patch with my grandparents, and then my grandparents ventured out with other relatives to partake of the bounty. From her home across the lake, Olwyn spied this horde through binoculars



and drove over to investigate. Because of my mother's betrayal, Olwyn declined to be her partner in the club tournament that year.

Wild blackberries have not disappeared, but you must travel farther to find them, and often what you stumble on are large patches of male vines with no fruit. Nowadays it's mostly Himalayan blackberries that fill people's buckets. I don't know when these large, dusty impostors were introduced, but like Canada geese and Eastern grey squirrels, they have adapted well to the Coastal Northwest, and they provide an excellent excuse for blackberry festivals. Often found poking through cracks in the asphalt and, even as I write, coursing underground in my garden searching for a spot to emerge, these

berries are tasty and make a good cobbler, but the "whiskers" resulting from leftover styles make them too indelicate for a pie.

When I was growing up on the outskirts of Seattle, there were fewer people, less pavement and more lizards and snakes. Although I now live an urban life and have changed with the times, the wild blackberry of my childhood, *Rubus ursinus*, lives in my memory as a symbol of another era, and of a remotely different way of life. ∞

JANINE ANDERSON, CPH, is a landscape designer (www.anderson-design.net), long-time Arboretum guide and member of the "Bulletin" Editorial Board.

GET WELL SOON, JAN

The Arboretum Foundation

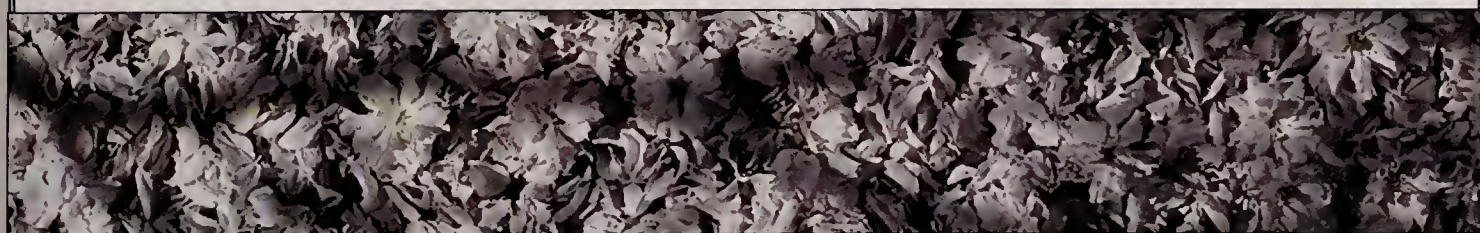
would like to wish our "Bulletin" editor,

JAN WHITNER, a speedy recovery from her recent surgery.



Get well soon, Jan!

We love you and all the wonderful work
you do for our magazine!





MILLER LIBRARY REFERENCE SERVICE: From the Perennial to the Exotic

BY REBECCA ALEXANDER

When should I prune my roses/clematis/hydrangea? How do I get rid of bamboo/ivy/horsetail? Should I get rid of lichen? Why won't my tree peony flower? I need a tree that will not grow taller than 15 feet.

My husband likes to smoke cigars in the greenhouse—bad idea? Are splinters from an elm tree toxic to humans? I'm writing a novel set in Seattle in the 19th century, and the heroine needs to hold a bridal bouquet of nonpoisonous, fragrant, native flowers that might be blooming between July and November—any ideas?

OVERVIEW

Reference service at the Elisabeth C. Miller Library is hybrid in nature. Part university research library, part public library, we provide in-person, telephone and e-mail reference services. In 2009, we answered over 5000 gardening questions. The library Web site extends resources beyond the library's walls, with a database of answered reference questions, several dozen subject bibliographies, and an annotated directory of links.

Of the six members of the library staff, four are frontline reference providers and bring varied backgrounds to the task, including MLIS degrees, horticulture and botany coursework at the community college and university level, teaching experience, and hands-on gardening skills as professionals and avid home gardeners. We draw frequently upon each other's knowledge and expertise in providing service to patrons.

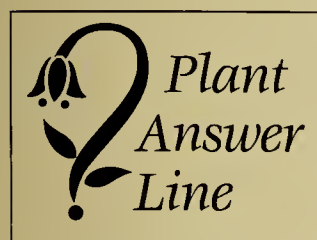
In-Person Reference

Because we are one of just a few University of Washington-affiliated libraries that provide

full service to the general public, patrons from all levels of horticultural experience use our resources. Dealing with a diverse clientele requires the flexibility to aid a pteridologist, writing about fern nomenclature, while simultaneously helping a dozen teenagers from Seattle Youth Garden Works (a vocational horticulture program for at-risk youth) who are seeking information on invasive plants. We also act as information ambassadors for the plant collections at the Center for Urban Horticulture and the Washington Park Arboretum, fielding frequent questions about plants growing at both University of Washington Botanic Gardens sites.

In addition to the 15,000 books and 250 serial subscriptions at our fingertips, the Garden Literature Index (an EBSCO product) provides easy access to the content in some of our periodicals. Current and historical seed catalog collections, a children's collection—which includes teaching resources, a vertical file of ephemeral materials, and assorted yearbooks and directories also are helpful to us when

providing assistance to patrons. And, located just beside the reference desk, are the Pacific Northwest Connections shelves—featuring books by local authors with a wealth of information regarding local approaches to gardening, as well as books about regions with comparable growing conditions.



Plant Answer Line

Since April 2001, the Elisabeth C. Miller Library has provided a free public service called Plant Answer Line (PAL). The service was the idea of former library manager Valerie Easton, who envisioned PAL as a quick information line much like that offered by the Seattle Public Library.

Most users of the PAL service are local, but anyone may call or e-mail us from anywhere in the world with gardening questions of all kinds. These range from the familiar and seasonally predictable to the odd and arcane. Most questions are answered the same day, but some responses require more extensive research. We serve beginning gardeners, professional horticulturists and academics alike. As with any reference interview, it is sometimes necessary to winkle out the underlying question, including clues to the questioner's level of expertise and geographical location (if that information has not been provided in the online PAL form or the body of the message).

Unlike the Master Gardeners who are trained by Washington State University Extension Service, we do not necessarily answer as experts but instead substantiate our responses with references to books, articles, Web sites and subject specialists. For example, we refer many questions about plant disease to the county extension's diagnostic clinic, and pass on tricky plant-identification questions to the Herbarium specialists on site. When appropriate, we use our collective gardening know-how in assisting patrons, but we make

a point of citing sources other than ourselves most of the time.

Examples:

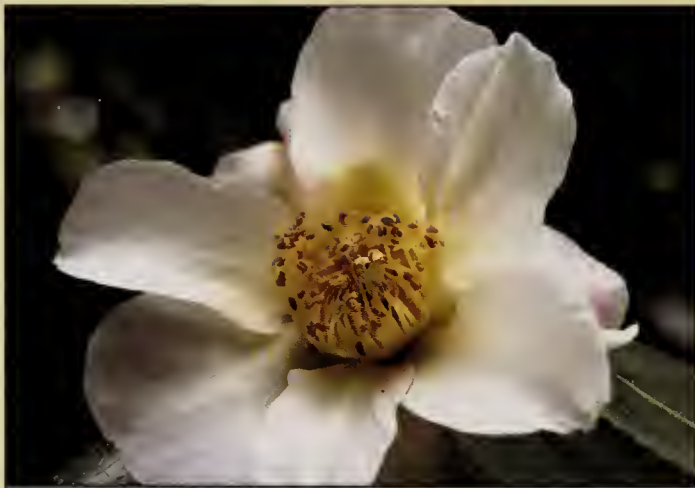
Generic questions about the value of trees have, in the past, come from a City Council member seeking fodder for an argument in favor of saving and increasing the city's tree population, a junior high student doing a presentation, as well as homeowners whose neighbors have illegally topped their trees. Similarly, a question about the medicinal and edible properties of Ginkgo biloba may turn out to be from a novelist seeking historical authenticity or an elderly patron who is planning to harvest leaves and make a tisane to serve her friends: The answers vary accordingly!

A professional gardener in Brooklyn wants information on low-maintenance container plants for a shady spot that gets hot air from vents. In addition to information gathered from our shade and container plant books, I referred him to the Brooklyn Botanic Garden's (BBG) Web site, which has generous excerpts from their publications (not to mention that this gardener lives less than a mile from the BBG, and could take advantage of the Gardener's Resource Center).

A patron in Nigeria wants easy-to-understand information about the responses of various cocoyam species to fungal pathogens, and he needs it quickly. We do not have resources in the library itself, but because of our cooperative arrangement with UW Libraries, I was able to find articles through their periodical indexes and send them. I located a Web site devoted to research on cocoyam cultivation and referred him to plant pathologists at other institutions who specialize in cocoyam root rots.

The Gardening Answers Knowledgebase and Miller Library Web Site

Technology librarian Tracy Mehlin sowed the seeds of the Knowledgebase in 2000, and after much planning and the efforts of many,



THE ARBORETUM LEGACY CIRCLE

Bequest gifts have a significant impact on the health and vitality of the Washington Park Arboretum. If you have included a gift to the Arboretum in your estate plans, you qualify for membership in our new Arboretum Legacy Circle. Please notify us of your bequest. We would like to thank you for your gift intention and celebrate your generosity with you!

For full details, contact our Development Director, Andrea Myers at 206-325-4510 or amyers@arboretumfoundation.org.



the database emerged in 2006. It includes over 1300 questions and answers taken from actual interactions with patrons, nearly 200 “garden tools” (quick and handy tips), and nearly 600 recommended Web sites. Curation of content in the Gardening Answers Knowledgebase is rooted in the recognition that there are “perennial” questions gardeners ask, but there are also more “exotic” questions whose answers are harder to find. By including both types of questions, we provide a service to our users and simultaneously save the time of reference staff. The Knowledgebase undergoes perpetual editing due to the ephemeral nature of Web links, but there also are changes in botanical nomenclature and best horticultural practices to take into account. (You say *Myrica*, I say *Morella*! Planting hole: amend or no? Dig extra deep or extra wide?) The Knowledgebase, and the vast amount of information on the Miller Library Web site, are freely available to anyone with Internet access.

McAuliffe's Valley Nursery

*It's not just a nursery
It's an experience*



Visit our nursery and see the quality of our field grown ornamental trees, shrubs and conifers as well as our perennials, annuals, herbs, berries, fruit trees and topiaries



(360) 862-1323
11910 Springetti Road
Snohomish, WA 98296
www.mcauliffesvalleynursery.com

Booklists

Booklists on a wide array of subjects are linked from the Miller Library Web site, as well as available in print form in the library. Some are geared toward courses being offered by Center for Urban Horticulture faculty (e.g., Peer-Reviewed Journals; Restoration Ecology). Others are developed for special events, such as the Northwest Horticultural Society's symposia. Most are updated at least annually, and occasionally new subjects are added. This year, we added a list entitled “Garden of Ideas,” bringing together disparate titles that address philosophical or sociocultural aspects of gardening.

Other Concerns

“How much dumbcane would it take to paralyze a dog's vocal cords?”

When I discovered this question (and its answer) in our QuestionPoint archive, it sent chills down my spine. How would the

response to such a question be used? Thinking about this issue eventually prompted us to seek advice from the Attorney General's Office on the University of Washington campus. While not all of our problematic reference questions are sent by would-be dog poisoners, there are enough questions about such things as mushroom identification, medical and legal matters, and pesticides, that it seemed wise to protect ourselves from liability. We also provide links to outside content on the Web site and in email responses for which we may not wish to be responsible. With the Attorney General Office's guidance, we developed a terms-of-use statement and a disclaimer which can be found on the web site as well as linked in every email response we send. There is also a written policy on how to respond safely to questions, and we provide training to those volunteers who answer the phone or e-mail messages, or staff the reference desk.

“Are You Being Served?”

This question (and the many shades of subtlety under its umbrella) informs ongoing refinements and improvements to the reference service we offer our patrons. Our participation in a network of fellow librarians (CBHL, of course!) enhances and enriches the service we provide to our library users. We hope conference attendees will take the opportunity to explore the Miller Library, and share their views on the conference theme. We welcome and encourage you to take advantage of our online resources (Plant Answer Line, Gardening Answers Knowledgebase, subject booklists, annotated web links) when you are back “at home” in your own libraries as well. ∞

REBECCA ALEXANDER is the Plant Answer Line librarian at the Elisabeth C. Miller Library, where she has worked since 2006.

Washington Park Arboretum

Summer Camps

| JULY | | | | | | |
|------|----|----|----|----|----|----|
| S | M | T | W | T | F | S |
| | | | | | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |

Mon - Fri, 9am - 3pm
(before & after care available)

6 - 12 year olds

\$250/wk (15% discount for UW staff & Arboretum Foundation members)

register online: www.uwbotanicgardens.org





Washington Park Arboretum
2300 Arboretum Drive East
Seattle WA 98112-2300
www.arboretumfoundation.org

NONPROFIT ORG.
US POSTAGE
PAID
SEATTLE, WA
PERMIT NO. 126

An arboretum
is a dynamic
collection of
woody plants
for research,
education,
conservation
and display.

*****AUTO**3-DIGIT 981

Elisabeth C Miller Library
UW Botanic Gardens
Box 354115
3501 NE 41st Street
Seattle, WA 98195-4115



molbak's
garden+home

A proud supporter of the
Washington Park Arboretum,
Molbak's has been helping
Northwest gardeners bring
inspired ideas and lasting beauty
to their own backyards
for generations.

- Gorgeous plants, for garden + home
- Informative seminars
- Inspiring ideas
- Knowledgeable staff

(425) 483-5000 • 13625 NE 175th St., Woodinville • molbaks.com